Introduction: Definition and Scope of Conflict Economics

For many people, in many places, violent or potentially violent conflict is part of the human experience. Headline stories of civil strife, insurgency, nation-state warfare, terrorism, and the proliferation of weapons of mass destruction document the prevalence of conflict as a basic fact of life. Less dramatic indications of conflict include deadbolt locks, gated residential communities, electronic security systems, and handgun sales, to name a few. At first blush, it might appear that economics has little if anything to say about life’s harder side. Economics textbooks typically restrict their attention to the peaceful behavior of consumers, producers, and governments in the marketplace. Thus, it might seem that potential and actual violence over resources, goods, and political power lie outside the domain of economics. But this is a misperception, as is demonstrated by the rapidly developing field of conflict economics.

1.1. What Is Conflict Economics?

Conflict economics has two defining characteristics. First, it maintains that the concepts, principles, and methods of economics can be fruitfully applied to the study of conflict activities. Thus, diverse phenomena like war, arms races, alliances, and terrorism are analyzed and understood as outcomes of purposeful choices responsive to changes in underlying incentives. As just one example, economics explains how consumers shift purchases from one good (say orange juice) toward another (say grape juice) when the price of one rises relative to that of the other. Similar economic forces are at work in many conflict settings: when one type of weapon is constrained by arms control, another type is substituted; when political targets are hardened, terrorists turn to less costly civilian targets;
and when entrepreneurs of local violence lose access to land mines, they employ young males armed with assault rifles.

But conflict economics is more than the application of economics to conflict. It also involves a gradual reconstruction of the core of economic theory to take account of conflict. Conflict of the sort considered in this book ultimately involves intended or realized appropriation, where the term “appropriation” refers to a taking that rests on force or the threat of force. As its second defining characteristic, conflict economics treats appropriation as a fundamental economic activity, joining production and exchange as a means of acquiring wealth. Traditional economic models assume that economic behavior is peaceful. Yet in real economies, conflicts over goods and resources abound. Conflict economics seeks to close this gap between theory and reality. Thus, a range of appropriative activities has been modeled, including resource conflicts, piracy, and extortion. These models reveal how conflict both shapes and is shaped by the traditional economic activities of production and exchange.

For the purposes of this book, we define conflict economics as (1) the study of violent or potentially violent conflict using the concepts, principles, and methods of economics and (2) the development of economic models of appropriation and its interaction with production and exchange activities. By including the qualifier that conflict on some level be violent, the definition intentionally excludes the analysis of ordinary market competition and, more tentatively, activities like litigation and rent seeking. Clearly included by the definition is the study of what might be called macro conflict, comprising interstate conflict (e.g., war between states), intrastate conflict (e.g., civil war, domestic terrorism), and extra-state conflict between states and external non-state actors (e.g., international terrorism, colonial wars). Also included is the study of micro conflict, meaning conflict activities among private persons and organizations (e.g., theft, extortion, human trafficking). In the next section, we begin to document empirically the enormity of conflict in the human experience.

1.2. A Look at Conflict Large and Small

Macro Conflict

Interstate, intrastate, and extra-state conflicts are the primary subject matter in conflict economics. Based on data from the Correlates of War
(COW) Project, Uppsala Conflict Data Program (UCDP), and International Peace Research Institute, Oslo (PRIO), Figure 1.1 shows the frequency of interstate, intrastate, and extra-state war onsets from 1820 to 2006. War onsets are wars initiated during the time periods indicated. Figure 1.1 shows that there were 408 war onsets of all types in the international system from 1820 to 2006. About half of the wars were intrastate (221, or 54.2%), followed by extra-state (106, or 26.0%) and interstate (81, or 19.9%). Figure 1.1 also shows that there were more interstate and intrastate wars in the 1900–99 period relative to 1820–99 (50 and 143 compared to 30 and 70), but fewer extra-state wars (35 compared to 71). Over the past five decades, intrastate wars have become more frequent while extra-state wars have diminished significantly. According to Sarkees, Wayman, and Singer (2003), the decline in extra-state wars is due to the reduction in the numbers of colonies and dependencies in the international system.

Figure 1.2 depicts the worldwide frequency of international and domestic terrorist incidents combined for the period 1970–2004. Domestic terrorism “is perpetrated within the boundaries of a given nation by nationals from that nation,” while international terrorism involves “the
interests and/or nationals of more than one country” (LaFree, Dugan, Fogg, and Scott 2006, pp. 5 and 22). Figure 1.2 suggests two observations. First, no upward (linear) trend is evident in the incident series for the full time period. Second, terrorist incidents around the globe were far more numerous in the 1980s and early 1990s relative to the latest years in the sample. However, in recent years the number of casualties per incident (not shown) has been rising (Enders and Sandler 2000).

Although scholars distinguish interstate, intrastate, and extra-state conflict, some conflicts fit two or even all three of the categories. For example, the post–Gulf conflict in Iraq began in March 2003 as an interstate war between Iraq and a coalition of states led by the United States. Following the official end of major combat operations in May 2003, the United States and its allies began a transitional occupation until the Iraqi Transitional Government was installed in January 2005. This was followed by violent conflict between irregular armed forces on one side and the new Iraqi state and the US-led coalition on the other. Since the irregular forces encompass both Iraqis and foreign forces putatively associated with al Qaeda, this stage of the conflict in Iraq is both intrastate and extra-state in nature.
The macro conflicts summarized in Figures 1.1 and 1.2 involve three types of economic costs. First, when nations and groups allocate resources to conflict, alternative goods that could be produced with those resources, such as food and clothing, are forgone. This economic cost is borne even when the conflict activities are purely defensive and no violence occurs. Second, when violence does occur, goods and resources (including human lives) are destroyed, causing current and future consumption and production to be sacrificed. Third, threatened or realized violent conflict causes some present and future production and exchange activities to be rendered uneconomical and hence lost. Collier (1999, p. 171) characterizes the three economic costs of conflict as diversion, destruction, and disruption. The next three figures provide some sense of the nature and magnitude of these economic costs of conflict within the international system.

Figure 1.3 shows real (inflation-adjusted) military expenditures for selected nations in 1992, 1997, 2002, and 2007. These expenditures serve as a proxy for the direct diversion of resources associated with potential or actual conflict involving nation-states. The years 1992 and 1997 reflect conditions following the end of the Cold War rivalry between the United States and the
Soviet Union in 1989 and the 1990/91 Gulf War. The decline in real military spending for the United States and Russia from 1992 to 1997 is consistent with a hoped for “peace dividend” following the Cold War. The years 2002 and 2007 follow the September 11, 2001, terrorist attacks on the United States. The substantial increase in real military spending for the United States from 1997 to 2007 suggests that the terrorism threat squelched any continued peace dividend. Note that Figure 1.3 also shows upward trends in real military spending for several nations in South Asia and the Middle East.

Estimates of the destruction of human and physical assets for selected states involved in World War II are presented in Figure 1.4. The figure shows the destruction of human lives as a percentage of the working-age population and the destruction of physical assets as a percentage of national wealth (or industry fixed assets in the cases of Germany and Italy). Human destruction ranged from one percent for the United Kingdom and the United States to as high as 19 percent for the USSR. Physical asset destruction ranged from zero percent for the United States to 25 percent for the USSR and Japan.

Figure 1.5 shows the United States’ real merchandise trade (exports plus imports) with Germany and Japan before, during, and after World War II. Notice how trade is driven to zero or near zero during the war and

![Figure 1.4](image-url)
rebounds with the restoration of peace. Figure 1.5 is but one example of how conflict disrupts economic activity, in this case trade.

Figure 1.6 depicts the cost for 2007 of selected multilateral peace missions by location and by the sponsoring intergovernmental organization (IGO). Several observations follow. First, numerous IGOs, such as the United Nations (UN) and the North Atlantic Treaty Organization (NATO), undertake peace missions. Second, some missions involve multiple IGOs, such as the Organization of Security and Cooperation in Europe (OSCE) and NATO in Kosovo and the African Union (AU) and the UN in Sudan. Third, peace is costly. For example, the annual cost of peace missions exceeds $1 billion both in the Democratic Republic of Congo and in Sudan. According to the Stockholm International Peace Research Institute, the annual cost of all multilateral peace missions in 2007 was $7.5 billion. While war clearly entails economic costs, Figure 1.6 documents that substantial resources are invested to establish or maintain peace in many nations and regions.

**Micro Conflict**

Common theft, piracy of merchant ships, and human trafficking are but a few examples of appropriation possibilities at work in modern economies at the micro level. Figure 1.7 shows real (inflation-adjusted)
expenditures on defense against crime (police protection, correction, and judicial and legal activities) by federal, state, and local governments in the United States (measured on the left axis). Also shown is the real lost value associated with property crimes such as robbery, burglary, larceny, and motor vehicle theft in the United States (measured on the right axis).

Figure 1.8 shows the total number of actual and attempted pirate attacks against merchant ships worldwide from 1998 to 2007. In 2007, a disproportionate number of pirate attacks occurred in the waters of South Asia (Indonesia – 43, Bangladesh – 15, India – 11, Malaysia – 9) and Africa (Nigeria – 42, Somalia – 31, Gulf of Aden/Red Sea – 13) (ICC International Maritime Bureau 2007, pp. 5–6). Attacks against ships in the Malacca Straits were much less frequent than in the early 2000s, due in part to increased naval patrols by Indonesia, Malaysia, and Singapore, and in part to the adoption of new merchant defense technologies, including electrified fences.
1.2. A Look at Conflict Large and Small

Figure 1.7. Real expenditures on defense against crime (left axis) and lost value from property crimes (right axis) (billions of US dollars at 2001 prices).


Figure 1.8. Worldwide pirate attacks against merchant ships, 1998–2007.

and unmanned aerial vehicles. Lastly, Table 1.1 provides information on victims of human trafficking, which is “a worldwide form of exploitation in which men, women, and children are bought, sold, and held against their will in slave-like conditions” (United States Government Accountability Office 2006, p. 1). As shown, an estimated 2.45 million people were trafficked over the 1995–2004 period, with a high percentage of victims being females and minors.

### 1.3. Methodology of Conflict Economics

**Conflict and Economics**

Conflict and economics combine naturally in four distinct ways that we draw on throughout this book. First, conflict is a choice. Economics is defined as the study of choices that people make under conditions of scarcity. Because conflict involves choices among various violent and non-violent alternatives, the concepts, principles, and methods of economics apply directly to a wide range of conflict activities. Second, conflict affects economic outcomes. As shown earlier, war seriously diminished trade between the United States and Germany and Japan during World War II. Other economic variables disrupted by conflict include production, capital and labor migration, investment, and growth. Third, economic variables affect conflict. Trade, foreign direct investment, growth, income, and

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Table 1.1. Victims of human trafficking worldwide.

<table>
<thead>
<tr>
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<th>US Government Study</th>
<th>International Labour Organization Study</th>
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<tbody>
<tr>
<td>Number of Victims</td>
<td>600,000–800,000 trafficked across borders in 2003</td>
<td>At least 2.45 million trafficked internationally and internally, 1995–2004</td>
</tr>
<tr>
<td>Type of Exploitation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commercial sex</td>
<td>66%</td>
<td>43%</td>
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<tr>
<td>Economic or forced labor</td>
<td>34%</td>
<td>32%</td>
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<tr>
<td>Mixed and other</td>
<td></td>
<td>25%</td>
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<tr>
<td>Gender and Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Females</td>
<td>80%</td>
<td>80%</td>
</tr>
<tr>
<td>Minors</td>
<td>50%</td>
<td>40%</td>
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